Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3

CONFIDENTIAL

SAPC 13814
COPY 1 OF 1

APQ-56 SERVICE NOTES
#4
6 MARCH, 1957

Symptom	Probable Cause and Correction
Recorder	
1.7 Camera film drive will not respond to change in aircraft ground speed.	Shorted tube V4643(5687). Replace with correct type tube 5687WA.
1.8 Film scratched on lefthand edge over an area approximately 3/8" wide along the entire length of film. Film does not advance.	Magazine shutter adjustment screw is out of adjustment causing film to bind between shutter and film drive drum. Readjust shutter adjustment screw to prevent binding. Make sure shutter opening clears camera opening properly when camera is reinstalled.

REVISED CRT FOCUS PROCEDURE

The new focusing procedure described below in detail is written for the Time Shared System. Its purpose is to materially improve the CRT focusing and thereby obtain maximum target resolution. The basic focusing procedure can be applied to all AN/APQ-56 systems, however slight changes in interconnection may be necessitated.

1. Connect Recorder Test Set 1JD8992-G1 to the Recorder as follows:

   A. Connect J4 jack to BIAS TEST jack J5519 on Recorder with test set cable 2JB4141-G1.

   B. Disconnect P5503 from J5503 on front of Recorder and connect J5503 to J1 on test set with test set cable 2JC1773-G1.

2. Connect Hemlett Packard Pulse Generator, Model 212A, to Recorder:

   A. Disconnect trigger cable from Modulator at J5507 and reconnect J5507 to SYNCIN jack on HP Generator. Patch cable to be RG-62A/U with UG-260/U connectors on each end.

   B. Disconnect Video cable from Modulator at J5508 and reconnect J5508 to PULSE OUT jack on HP Generator. Patch cable to be the same as in 2A above with the addition of a UG-201A/U adapter.

3. Place radar set in stand-by operation with top cover removed from Recorder. Install Focus and Alignment fixture on Recorder.

4. Set TEST SELECTOR on Recorder Test Set to the B position and adjust BIAS ADJ B control for mid-scale (0.5 ma) reading on CRT INTENSITY meter.

CONFIDENTIAL

Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3

Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3

5. Turn on HP Generator. Set SYNC SELECTOR to (+) position, POLARITY control to (-) position, and set pulse width for 0.03 microseconds.

6. Position eye piece so as to view the trace through the center (large unfrosted) hole in the reticle.

7. EYE PIECE ADJUSTMENT:

   A. Adjust BIAS ADJB control on Recorder Test Set for full scale reading on CRT INTENSITY meter to brighten the sweep on CRT.

   B. Purposely set COARSE FOCUS control on Recorder to new position to further illuminate the phosphorus on CRT.

   C. Very carefully adjust the eye piece for best focus on the phosphorus grain on the CRT (do not focus the sweep). NOTE--Once this adjustment is achieved, do not readjust the focusing of the eye piece during the remaining steps of this procedure.

   D. Readjust BIAS ADJ B for half-scale reading on CRT INTENSITY meter and reset COARSE FOCUS control to original (best focused) position.

8. Place MARKS switch on Recorder to the OFF position. Adjust PULSE POSITION controls on HP Generator and SWEEP POS potentiometer (if necessary) on the Sweep Driver Chassis to position the test pulse inside one of the very small circles on the reticle. Adjust AMPLITUDE control on HP Generator for average intensity of the test pulse; do not use excessive intensity.

9. CRT FOCUS:

   A. Without touching eye piece focus, carefully adjust FINE FOCUS potentiometer on Recorder until the test pulse is as round as possible. When properly executed, the test pulse will easily fall within the confines of the small circle. (Small circles are 5 miles, center to center, test pulse should be approximately 3 miles).

   B. Repeat 9A above to insure final focus adjustment.

10. Reposition CRT sweep properly if it was necessary to displace it in step 8 and lock all Recorder adjustments.

11. Disconnect test equipment and reconnect system as applicable pending subsequent tests.

Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3

Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3

Symptom	Probable Cause and Correction
Recorder	
1.9 Indication on FILM USED indicator (located on camera) does not increase when FILM ADVANCE button is pressed or when radar set is in normal operation, indication on FILM ADVANCE counter (located on Monitor Scope) continuously increases.	Film has slipped out of take-up spool slot and is not being wound up. When loading film, always tape film to take-up spool after inserting end of film in spool slot. Masking tape may be used for this purpose. Check after loading camera by pressing FILM ADVANCE button and noting increase in FILM USED indication.

Approved For Release 2011/08/09 : CIA-RDP89B00487R000300610003-3